

CLAIMS

1. A method for growing a tissue structure, the method comprising:

providing a scaffold having the shape of the tissue structure, the scaffold including a biodegradable and/or non-biodegradable material;

seeding the scaffold with tissue precursor cells; and

growing the seeded scaffold in vitro under conditions and for an incubation time sufficient for the tissue precursor cells to produce tissue on the scaffold and form a tissue structure that can be implanted into a patient without causing an immune response.
2. The method of claim 1, further comprising selecting the scaffold to include one or more materials selected from the group consisting of acrylic, polyethylene, polypropylene, and polystyrene.
3. The method of claim 1, further comprising selecting the scaffold to include a plastic.
4. The method of claim 1, further comprising selecting the tissue precursor cells to include chondrocytes.
5. The method of claim 1, further comprising selecting the incubation time to be at least ten weeks.
6. A tissue structure grown by the method of claim 1.